

**Summary of ICCR Source Work Group Meeting, April 3, 1998
Internal Combustion Engines Work Group Meeting
Amoco Building, Houston, Texas**

Decisions/Discussion

Testing Subgroup

- A meeting will be held to discuss the testing contract and budget on Thursday, April 9 in Fort Collins, Colorado. Attendees will include Sam Clowney, Bryan Willson, Jeff Lacosse of ERG, representatives from PES, and Terry Harrison.
- The first test is scheduled for late June, subsequent to the aging of the 2-stroke catalyst. Schedule will depend on contractor.
- Regarding catalysts, there were 2 positive responses from the Requests for Participation. These include Johnson Matthey and Miratech. Costs for catalysts would run about \$4K per engine.
- In order for the catalyst manufacturers to specify a catalyst, a level of reduction needs to be determined.
- The aging process should take less time than initially expected. Costs for the aging process should also decrease.
- Five questions that are being investigated by the Testing Subgroup and will be addressed in the Quality Assurance Policy Plan (QAPP) are:
 - *Should the data be merged with the Emissions Database or used singularly?
 - *What range of emissions is expected for each pollutant?
 - *What should the detection limits be? What level of confidence will it be determined that the emissions are different than 0?
 - *Should the data points be averaged or used individually?
 - *Is the decision on the MACT floor going to be made on the test average or subcategories based on each test?

Model Plants

- The WG discussed the need to begin work on model plants to conduct above-the-floor cost-effectiveness analyses and agreed to have "model plants" on the agenda for the next meeting.
- Costs of control devices are now being researched by Alpha-Gamma.
- It was suggested that model units be based on function; the three functions of RICE include pumping, electrical generation, and gas compression.
- Model plants will be developed by the Next Steps Ad Hoc Group to be presented at the next meeting.

SCR as a Control Device for HAPs

- Alpha-Gamma shared some information from Siemens regarding SCR (in German). Alpha-Gamma will forward more information on these documents when it is available.
- There are serious technical challenges pointed out by several WG members with SCR, including the use of ammonia. The ammonia must be well dispersed, and SCR is only effective for NOx control when a steady load is achieved by engines.
- The WG will address the issues of whether SCR is a viable control technology for HAPs for RICE. If so, the WG will conduct an analysis of SCR as an above-the-floor option.

Landfill Gas Fired Engines with Air Injection

- Seven percent of Landfill/Digester Gas fired engines were shown as having Direct Flame Afterburner as a control device. Due to further research, it was determined that these control devices are actually an in-house created control device, utilizing air injection to the exhaust of engines which are burned in an ultra rich fuel to air ratio. It was decided that this information would be presented as "Under Review."

CC Presentation on Preliminary MACT Floor

- The presentation was finalized, with the exception of one action item for Alpha-Gamma to contact sites which had LPG fired engines with catalytic afterburners to verify this information. Bryan Willson, Sam Clowney, and Mike Milliet will present at the Coordinating Committee Meeting in Fort Collins, Colorado on April 29th.

Next Meeting

- The next meeting will be in Fort Collins, Colorado following the CC Meeting, on April 30, 1998. It will be held at the EECL, where engine testing will be performed. This meeting is scheduled for 8 a.m. to 3 p.m, and will include a tour of the engine testing facility.
- Agenda Items will include:
 - *Show a summary of the members of each task group
 - *Strawman of model plants
 - *Emissions test plan status
 - *Emergency Generators

Action Items

- Alpha-Gamma and Sam Clowney: develop a strawman of model plants for presentation at the April Meeting. This will include a review and summary of the Economics WG presentation.
- Alpha-Gamma: Obtain more information on Siemens document/SCR reducing HAPs.
- Alpha-Gamma: Milestone Tracking Summary.
- Alpha-Gamma: Contact sites which had LPG fired engines with catalytic afterburners to verify this information.
- Alpha-Gamma: Make final changes to presentation, e-mail to WG by Wednesday, April 8 in PowerPoint 3.0.